

## Forest Service Finds Excessive Fluorides

Damaging amounts of fluoride have been found in trees and brush more than 10 miles from the Anacosta Aluminum Co. plant, primarily north and east of Columbia Falls.

This information is contained in a release by Supv. J. M. Pomajevich of Flathead National Forest.

Excessive fluorine was found in a second set of samples collected in November, 1969 and analyzed by the Wisconsin Research Foundation, Madison, Wis., a well-recognized laboratory.

Pomajevich noted that the fluoride damage study is under direction of Clinton E. Carlson, plant pathologist, and Jerold E. Dewey, entomologist, who are attached to the U.S. Forest Service regional forest insect and disease branch, Missoula.

First samples were collected in the Columbia Falls area in June, 1969.

U.S. Forest Service reports show that vegetation in the vicinity of Columbia Falls exhibits blight symptoms. Dieback of terminal portions of trees and shrubs contribute to an enduring increasing brownish appearance in the forested flatlands and mountainous area near Columbia Falls. Over 3,000 acres of national forest land appears to be affected.

Pomajevich added that the study which started June, 1969 includes national forest and national park lands within 10 miles of Columbia Falls. Two plots have been established 30 miles west and 30 miles south of Columbia Falls to serve as control plots for comparison

with findings closer to the city.

"The study will consist of two phases," Pomajevich explained. "The pathological phase will investigate fluoride damage to trees and possible associated disease outbreaks. Shrubs, grasses and perennial herbs will also be studied because of their importance in the food chain for wildlife and possible importance of their loss to watershed values."

The forest supervisor continued. "An entomological study will evaluate changes in the forest insect populations and fluoride accumulation in insects. If fluorine is found in

insect tissues, injury may result in birds, fish and mammals that feed upon these insects. Also, many trees are much more susceptible to insect attack when they are in a weakened condition."

He concluded: "Complete sampling of trees, shrubs, grass and insects will be done in April, June, July and October of 1970. A partial sampling will be conducted in July, 1971. Results of the chemical analysis of foliage and insect samples are expected to be available the fall of 1971."